GRUMMAN
plane news

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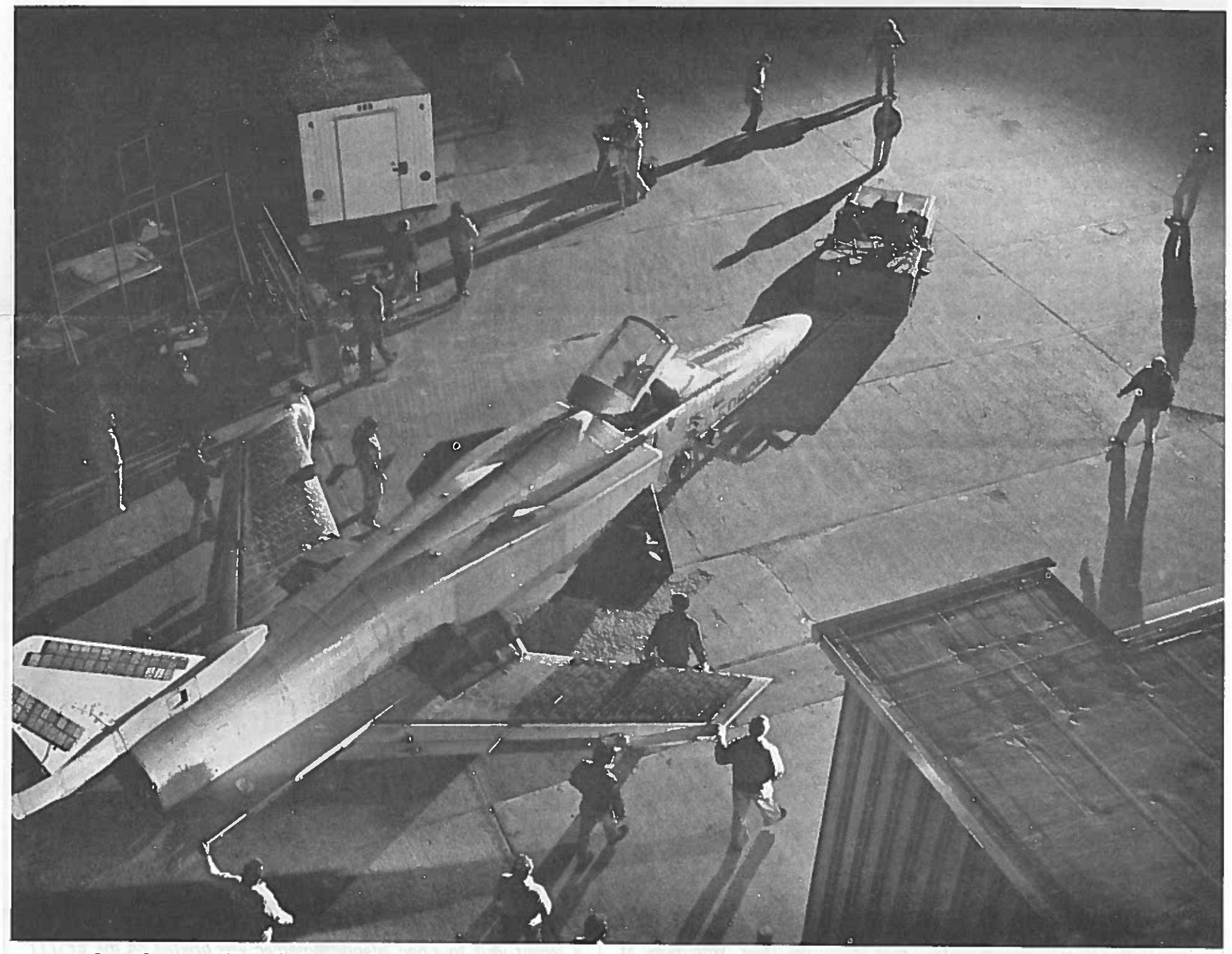


In the still of the night

X-29 moves into test hangar

- pg. 3

Profs participate in Tech Forum

They came from many of the major Northeast colleges and universities, the military and Coast Guard academies, and schools as far away as Stamford and University of Texas. The event: the annual Grumman/University Technology Forum, held October 31 and November 1 in Plant 25. The topic of discussion: "The Computer's Thrust in High Technology."

This was the fifth Forum Grumman Aerospace has sponsored over the past six years, to which academic officials and faculty are invited. "This year's Forum drew 125 attendees — a very good turnout for a conference of its type," says Bruce Hausser, Engineering Department university interface coordinator.

According to Hausser, the Forum's main purpose is to spark dialogue between Grumman and the academic community, giving educators a better idea of what skills will be required of high-tech grads when they look for jobs.

"Originally, the intent was to get schools to recognize Grumman as the leading aerospace-engineering company, and to let them know we would be interested in hiring their best engineering graduates," Hausser says. "Now, we hope that from what they learn at the Forum, they might go back and adjust their curricula so students will be better prepared for industry requirements."

In keeping with the Forum's theme, most of the seminars on the agenda covered aspects of computer technology. Among the topics covered were computer-aided engineering (CAE), CAD/CAM (computer-aided design and manufacturing), advanced computational technology, and VLSI/VHSIC (very large scale integrated/very high speed integrated circuits).

In addition to focusing on computers as engineering tools, the program covered how computers function as integral parts in Grumman high-tech products. For example, one seminar had attendees playing an E-2C Hawkeye video defense game.

A special dinner Monday, October 31, featured Dr. John Clarke, associate director for fusion energy, Office of Energy Research, U.S. Department of Energy, as guest speaker. Clarke spoke on "Fusion Research and Development: Preparing for the Future."

"It's in a school's interests to stay abreast of the latest technological developments, since well-prepared graduates have the best chances for obtaining good jobs," Hausser notes. "In recent times, schools have aggressively upgraded their engineering programs, and they are also more apt to seek advice from industry."

Tech talk. *Dr. John Clarke, associate director for fusion energy, DOE, was guest speaker at the Tech Forum dinner.*

retirees

On behalf of our fellow workers, PLANE NEWS salutes the following men and women for their contributions to the company and wishes them well in their retirement. Those who retire in November are:

Donald M. Wallace (5), Marty McGee (6), William C. Eissler (43), Dorothy Ruland (2), Charles E. Gibson (5), John Shest (1), Catherine M. Jeransky (28), George H. Smith (39), Daniel B. Benn (5), Errol D. Jones (15), Vincent Simone (5), Doris W. Sanders (9), Harold E. Shaeffer (56), Carl E. Berthold (2).

Aerospace earns safety award

Grumman Aerospace recently added one more award to its long list of plaques and citations for maintaining a safe and healthy workplace.

Travelers Insurance Company, which administers Grumman's workers' compensation plan, presented the company with its Award of Merit for achieving an excellent lost-time accident rate. The award was presented on October 21 in Plant 35 to Vice President Joe Kingfield, director of Quality and Safety Operations.

"Although it gives me great pleasure to accept this plaque, it should be noted that this award is really a reflection of Grumman's positive attitude toward employee safety, and employee willingness to comply with our safety programs," Kingfield remarked.

For five consecutive years (1978 through 1982), Grumman attained a rate of only two and one-half lost-time accidents per 100 workers annually. That rate is approximately 10 percent lower than the aerospace-industry average — which is, in turn, about half the average for all types of manufacturing companies.

United Way donations increase 10 percent in '83

The final figures are in, and 1983 has proved to be a banner year for Grumman's annual United Way campaign. Corporate-wide contributions by Grummanites to the United Way of Long Island totalled $862,495, up almost 10 percent from last year.

That represents the biggest jump in the past five years, according to Al Cobrin, co-manager of Grumman's United Way effort.

Curiously, there was a slight drop in the actual percentage of Grummanites who participated in the campaign — just over 90 percent of the work force.

"Although proportionally fewer people gave, the increase in total contributions indicates that each individual gave more," Cobrin points out.

Coupled with a corporate donation to United Way of approximately $225,000, this year's campaign tally brings the total Grumman contribution to over $1 million.

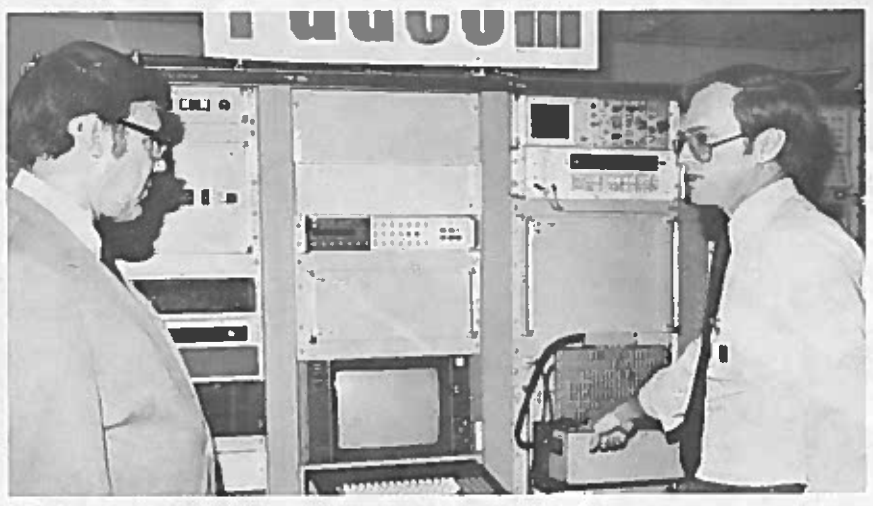
Grumman Aerospace's contribution figure of $762,909 heads the list of Grumman subsidiaries, up $57,367 from last year. Among the other subsidiaries, the tallies were as follows: Grumman Data Systems, $70,397; Grumman Allied Industries, $6,149; Grumman International, $2,794; Grumman Credit Corp., $423; and Paumanock Development Corp., $143.

Employees in Grumman Corporation gave a total of $19,677. All of these groups posted gains over last year, Cobrin says.

Figures for United Way campaigns at locations off Long Island haven't been tallied yet. In some cases, those areas' United Way chapters have their campaigns at dates later than Long Island's.

The names of 700 United Way participants were drawn on October 28, and each will receive a complimentary tote bag. The names have been posted in all plants. Winners may pick up their tote bags at Employee Services (ES) offices.

If you don't see a list posted in your area, and you want to find out whether you're a winner, contact your department's United Way representative.



ATE briefing. *Grummanite Donald Kump (R) explained some of the features of the RADCOM to Lloyd Moseman II, Deputy Assistant Secretary of the Air Force for Logistics and Communications. During a recent visit to Long Island, Moseman was briefed on the EF-111 and Grumman's ATE capabilities. RADCOM (Radar Communication) is the latest in a line of Grumman-built computerized automatic testers. It can test complex radar and communications equipment and pinpoint any malfunctioning components.*

X-29 plane enters static test phase

In the wee hours of the morning, the X-29 with its distinctive forward swept wings rolled out of the Product Development Operations Center assembly hangar into the neighboring static test hangar in back of Plant 5.

Only a few dozen Grummanites were on hand to witness the event on October 28, but the audience will grow a hundred-fold when the X-29 technology demonstrator takes to the skies on its maiden flight next summer.

Grumman is building the aircraft — the first "X" craft for the Department of Defense in over a decade — for the Defense Advanced Research Projects Agency (DARPA).

"The X-29 will undergo static tests — six days a week, 24 hours a day," reports Bob Roemer, X-29 Program director. The extensive testing which began November 2 involves proof loading — making sure the X-29 can take the loads it was designed to take — and calibration of the numerous instruments that will be used aboard the X-29 during flight tests. The static tests are expected to be completed by mid-January 1984.

On the move. *In the early morning hours of October 28, the X-29 demonstrator was moved into the static test hangar behind Plant 5. The tests began November 2 and will run six days a week, 24 hours a day, until mid-January.*

More work ahead

The plane will then return to the shop floor in Plant 5 and the flight control system will be installed.

As with all "X" planes, the X-29 is out to prove a concept. That concept: a forward swept wing can be built with lightweight composites that is light enough and strong enough for a high-performance aircraft.

Studies have shown that such an aircraft with composite forward swept wings should handle better around the speed of sound, be more maneuverable and yet fly slower before the wings stall and lose lift than an aft swept wing plane. It would also boost fuel efficiency.

More challenges

In addition to its forward swept wings made of graphite-epoxy composite materials, the Grumman X-29 will also feature other new aerodynamic technologies. It will have all-movable canards — small wings just aft of the cockpit that are aerodynamically coupled with the wing.

Another new technology that will be demonstrated is a sophisticated "fly-by-wire" flight control system. An advanced flight control computer will "fly" the airplane, creating its stability through small control inputs, thus leaving the pilot free to concentrate on other tasks.

The pilot will control the plane by electric signals in a digital fly-by-wire system which is lighter and simpler than present mechanical flight control systems.

This advanced digital flight control system is now being tested in Plant 14 and will be installed in the X-29 demonstrator in early 1984, says Roemer.

The present schedule calls for the X-29 to be shipped to Calverton in late April 1984 to begin preparations for its first flight in mid-summer.

GRUMMAN plane news

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obituaries

VIRGIL WILSON of Mgmt. & Staff, Plant 56, died October 18 at the age of 63. He had been with the company since 1968 and resided at 19 Orville Rd., Baltimore, Md.

LOUIS L. BAUSER of Elect. Box Pan/Draw Fabrication, Plant 43, died October 23 at the age of 59. He had been with the company since 1951 and resided at 170 West 2nd Street, Deer Park.

Carpools

Ronkonkoma/LIE Exits 59-60 vicinity: need 1 person for existing car pool to Calverton, 7 a.m. — 3:30 p.m. Jim, Ext. 6805/6554.

GAC gets Shuttle honor

Sy Rubenstein, vice president and general manager of Rockwell International's Shuttle Orbiter division, recently visited Grumman Aerospace to present President George Skurla with an award for Grumman's outstanding performance on the Shuttle Wing Program.

The model of the Shuttle spacecraft commemorates Grumman's contribution to the overall orbiter project. Five sets of wings have already been built and are currently in service. A sixth set is now being constructed by the Grumman team and is scheduled for delivery in December 1986.

Safety from the ground up

Simulator adds new dimension to flight test

Safety in the air begins on the ground. With their new fixed base simulator, the Grummanites of Flight Test are able to develop safe in-flight maneuvers — in the security of a small room in Plant 7 — for pilots in dangerous situations thousands of feet in the air.

"It's going to be an absolute godsend," says Dick Mazourek, director of Flight Test.

Potential savings

This fixed base, flight test simulator in the Automated Telemetry Station annex at Calverton went into operation in August. Grumman is using this complex yet unadorned simulator to test maneuvers for company-initiated projects and for the military. The potential savings in lives, time and money will be incredible.

"A couple of years ago, we started a program to evaluate 'departure' characteristics of F-14s. We were looking at high risk maneuvers, such as when an aircraft enters into a departure from controlled flight," Mazourek explains. Flight Test had the assignment of coming up with ideas for corrective maneuvers and then trying them out in the sky. It's a dangerous and expensive task.

"We decided to try out these techniques in the Plant 14 simulator by working the simulator as if it were a real aircraft."

It was a success. "In the subsequent F-14 Asymmetric Thrust Flight Test program we saved lots of fuel, lots of funds, and we increased safety," Mazourek states. But it still wasn't an efficient operation.

The Plant 14 simulator, needed for X-29 development work, was not always available. When it was, says Chief Test Pilot Chuck Sewell, "Our Flight Test people would have to jump into their cars and drive to Bethpage to run the tests."

In control. *Chief test pilot Chuck Sewell puts the new Plant 7 flight test simulator through its paces, while Dick Mazourek, Flight Test director; and Joe Wiley (R), observe.*

Go-ahead

It made sense to build a simulator for Calverton. "The Flight Test department got the go-ahead to build it in July of last year," Mazourek states.

Flight Test engineers studied the capabilities of different simulators and decided at this time they didn't need visuals.

Nor did they need a motion-based simulator. This type is very expensive because of the complex hydraulic systems needed to lift and drop and turn the cockpit.

In a year's time, a design team of Flight Test engineers, Manufacturing personnel and Grumman Data Systems programmers designed and built the simulator. Now a test pilot can walk out of his office, turn on the simulator, sit down and "fly."

'Initial requirements'

"That was one of the initial requirements," says Joe Wiley, who designed much of the simulator's hardware.

A pilot sits in a standard, fully adjustable ejection seat. He works a computer-controlled stick and rudder pedals. They give the pilot the same control feel he would get flying an F-14 or, with a quick change of programs, any other aircraft.

The control panel has all the necessary instruments — patterned after an F-14 test aircraft — to tell the pilot all he needs to try a maneuver.

Adaptable system

By unscrewing two bolts, engineers can change control panels. In a matter of a half-hour, pilots will be able to "fly" an A-6, or an EA-6B, or any other Grumman aircraft.

"This system was designed to be 'user-friendly'," says Rick Goodman of Flight Test Technology. "A touch-sensitive display screen, like those many electronic banking centers have, is mounted to the left of the instrument panel. The pilot punches in a situation: how high up and how fast the plane is, the plane's angle-of-attack . . . In other words, he creates a situation in simulated flight. He then presses "RUN" and tries maneuvers he thinks will get the plane back in control. If the maneuver doesn't work, he doesn't crash. He just presses "RESET" and tries again," says Goodman.

Sewell hopes to take this capability one step further. "While an aircraft is airborne for a test program, we'd be able to put a pilot in the simulator's cockpit," he explains. "All the in-flight data from the aircraft would be fed through the Telemetry Station into this console. If a pilot in the air goes out of control, the pilot in the simulator could help him come up with corrective actions."

calendar

AIAA/ASME: Thur., Nov. 17, Conf. Rm., Pl. 35, 5:30 p.m. Guest speakers will be Phil Mason, Phil Jacknis and Ted Campbell of Grumman Aerospace. Members only. S. Winkler, Ext. 4279/E. Lee, Ext. 6658.

American Production & Inventory Control Society: Tues., Nov. 22, Musicaro's, Melville, 7 p.m. dinner, 8 p.m. speaker. Technical presentation. Guest speaker will be Dr. Joel Orr of ORR Associates, guests welcome. N. Heilweil, Ext. 2250.

Coin Club: (Bethpage) Wed., Nov. 23, Plant 25, Vendor Conf. Rm. 12:05 p.m. Informal lunchtime meeting. Grumman employees only. K. Hale, Ext. 1825.

Computer Club: Mon., Nov. 14 & Dec. 5, Recreation Bldg., 7 p.m. Computer Demo/Lecture. Guests welcome. P. Frumkin, Ext. 5134/J. Hayne, Ext. 4945.

C.B.I. Vets Association: Tues., Nov. 29, Recreation Bldg., 5 p.m. Business meeting. Guests welcome. Reservations now being taken for 1984 reunion, San Antonio, Texas. R. Fong, Ext. 2484/W. Pytlowany, Ext. 3926.

GAC Disabled American Vets Club: Wed., Nov. 16, Plant 3 cafeteria, 4 p.m. Business meeting. O. Lewis, Ext. 4476.

GACE Flying Club: Mon., Nov. 21, Cosmopolitan, Republic Airport, 5:15 p.m. Regular monthly meeting. Guests welcome. R. Reisch, Ext. 4847.

IEEE/L. I. Section: Wed., Nov. 16, Polytechnic Institute, Farmingdale, 7:45 p.m. Joint meeting with AES Society, talk on "NEXRAD Radar Systems." Guest speaker will be S. Delligatta of Sperry. Guests welcome. D. Jackson, (516) 574-3435/A. Richter, (516) 369-6570.

Motorcycle Club: Wed., Nov. 16, Recreation Bldg., 5 p.m. Guests welcome. R. Coutieri, Ext. 4828.

Retiree Club: Wed., Nov. 30, Recreation Bldg., 1 p.m. Guest speaker, C. Sewell, Grumman Chief Test Pilot, all retirees welcome. E. Drasser, Ext. 2133.

Grumman Ski Club: Tues., Nov. 22, McKeons, Bethpage, 8:30 p.m. Guests welcome. A. Garmendia, Ext. 7819/8910.

Professional Secretaries International: Thur., Nov. 17, Riverhead Polish Independent Club, Riverhead, 6 p.m. Guest speaker will be Alex Hargrave, of Hargrave Vineyards. Guests welcome. C. Evans, Ext. 117-7167.

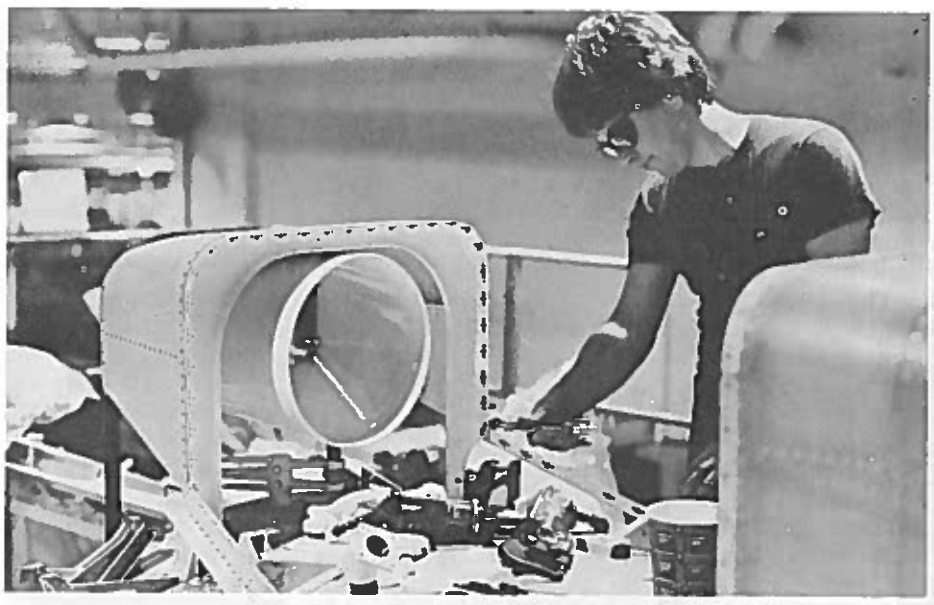
Society of Manufacturing Engineers: Mon., Nov. 14, Polytech. Institute of NY, 7:30 p.m., Farmingdale. Technical presentation, guest speaker will be Mr. Larry Noble, President of Norman Noble Inc. of Cleveland, Ohio. Guests welcome. V. Pavlik, Ext. 8767.

Society of Logistics Engineers: Tues., Nov. 29, Antuns, Hicksville, 5:30 p.m. Dinner meeting. Guest speaker will be Mr. Joseph Contegni, N.Y. State Dept. of Transportation. Topic "Logistics of Modern Computerized Vehicular Traffic Control System." Guests welcome. P. DiBenedetto, Ext. 6428.

Grumman Family Campers: Sun. Dec. 4, Recreation Bldg., 5 p.m. Guests welcome. B. Ingersoll, Ext. 117-7475/L. Deturris, Ext. 6855.

Correction: A Long Island chapter of the Association of Women in Science (not Space) is now being formed by a group of women at SUNY-Stony Brook University. If you are interested in joining, contact Gail Schuman, m/s F16-07, Ext. 117-6998.

The 25-year luncheon will be held at Colonie Hill in Hauppauge on Tuesday, December 6.



Inside scoop. *Ken Richardson works on the Hawkeye's air vapor cycle scoop.*

Hook up. *Pete Ramos (R) and Sal Aversano perform final electrical installation work on an E-2.*

It's history. *The crew from E-2C Fuselage Joining (Dept. 045) pose in front of the first E-2C to roll out of Plant 1. (Photos by Fred Annette)*

Pl. 1 team tackles new Hawkeye job

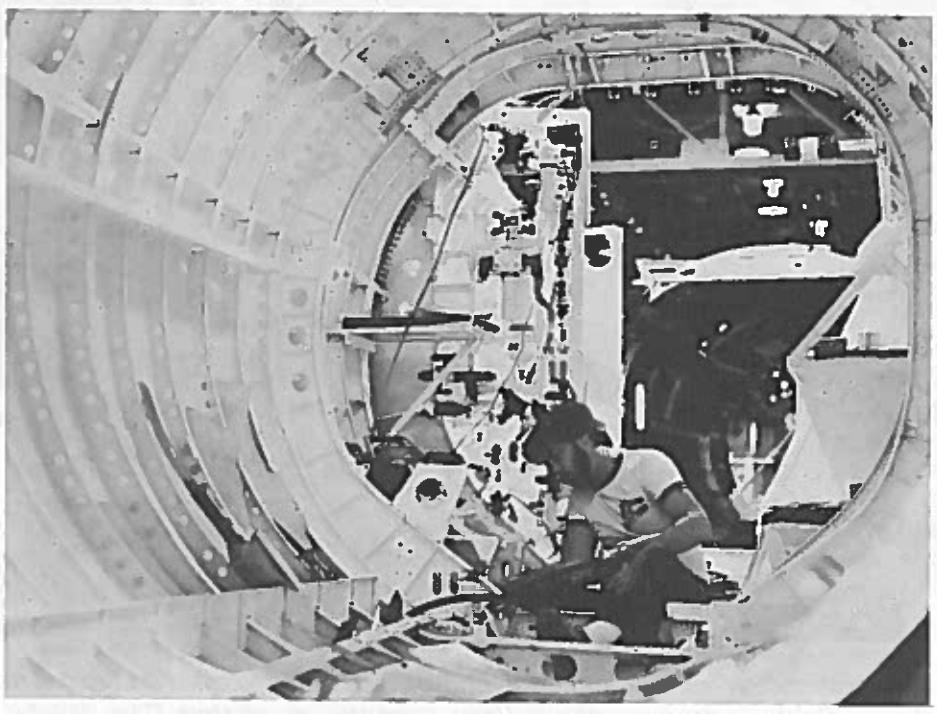
Plant 1 is humming. To make room for the C-2 in Plant 4 next year, the Plant 1 team took on the job of joining and stuffing the E-2C Hawkeye.

The team's first Hawkeye — a fatigue test article — rolled off the Plant 1 production line a few weeks ago. The present schedule calls for delivery of 10 Hawkeyes a year, reports George Reinhardt, Plant 1 manager.

In Plant 4, the Hawkeyes will get their wings, engines, and rotodome. In addition, Plant 4 will install the systems.

Plant 1 also houses the final assembly line for the C-2 Greyhound. Grummanites recently completed the first C-2 major sub-assembly. The first Greyhound will be rolled across the parking lot to Plant 4 in August 1984, says Reinhardt.

Keeping cool. *Bob Hurtig installs a radar cooling scoop on an E-2C.*



Clip by clip. *Bill Rode is rivetting a Hawkeye major sub-assembly.*

Industrial Safety & Hygiene

Keeping the workplace safe and healthy

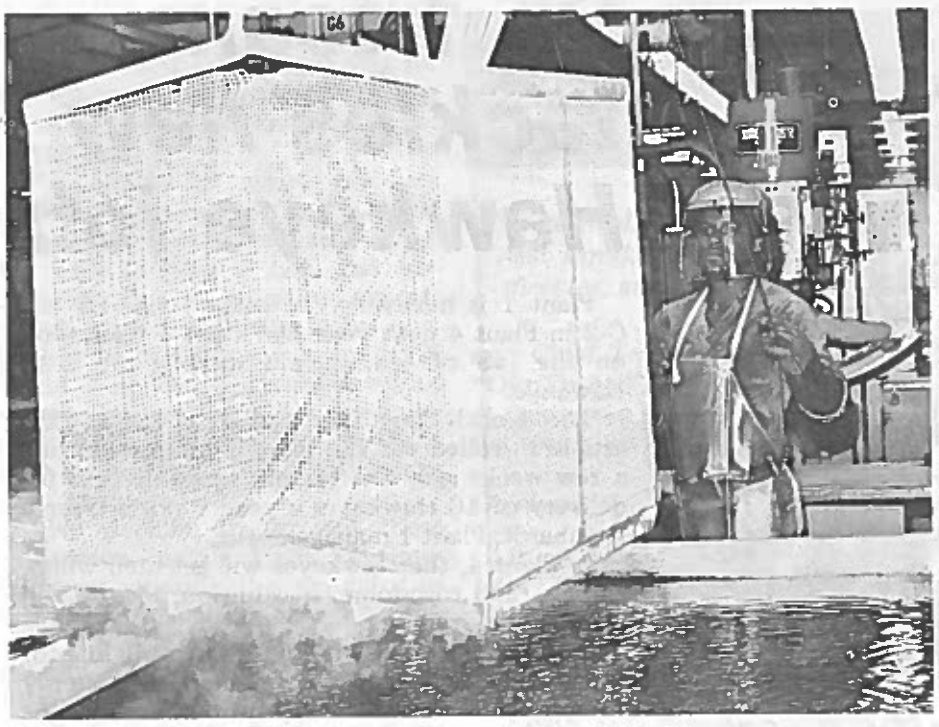
The old adage, "better safe than sorry," is usually a good rule to follow. And Grumman Aerospace has its own department to help people do just that — Industrial Safety and Hygiene, located in Plant 35.

The department may go relatively unnoticed by those who haven't had to rely on it to solve some sort of problem, but its responsibility is to protect the health and safety of everyone at the company. This includes Grummanites who work in offices as well as those in manufacturing plants.

Preventing injuries via the issuance of safety glasses, ear plugs, respirators, and other personal protective equipment is still a main function of the department. However, it now aims to prevent health hazards as well — effects from exposure to something toxic. The department added the words "and hygiene" to its name several years ago to reflect this.

In a company such as Grumman, where people may be required to work with potentially dangerous machinery, chemicals, noise, or even radiation, the department has its work cut out. It consists of four industrial hygienists, two industrial hygiene technicians, five safety engineers, and safety reps at manufacturing plants.

"It's the nature of the beast that you'll have to deal with injuries and health hazards from time to time," comments Joe Oakes, Safety and Hygiene Operation supervisor, Plant 2. The good part, Oakes says, is that since workers are very diligent about taking precautions, these are kept to a minimum.



Safety first. *George Williams' (top photo) face shield, gloves, and apron protect him from caustic chemicals used during finishing process. Above (left) a respirator protects Dave Crosby from paint fumes, while (right) Mike Loguidice wears a dust filter and safety glasses during grinding. At far right, Ron Mohr and Jeff Berleino don earmuffs and safety glasses while riveting.*

A better awareness

Oakes notes that today's employees are much more willing to utilize protective equipment than in the past. In addition, younger workers and new employees tend to be more cautious than others, especially regarding toxic substances. They also adapt more readily to new protective measures.

"The country has become much more aware about workplace safety," comments Rae Nemovicher, safety engineer. "At one time, someone who had an ailment wouldn't even think to attribute it to his or her job. Now, the awareness level has been raised."

When a Grummanite suspects something hazardous about a material or work process, the problem is first investigated by the plant safety rep, who determines whether it may indeed pose some risk. If so, the industrial hygienist makes an evaluation.

This may mean equipping the employee with a dosimeter to measure vapor concentrations or noise levels. During the test, the dosimeter is worn at or near the affected part of the body — for instance, within the employee's breathing zone for vapors.

However, the Industrial Safety and Hygiene Department aims to head off such problems. Health/safety audits are done annually at all major manufacturing plants. Additionally, Travelers Insurance tours the plants periodically.

The department examines all chemical compounds, solvents, paints, and other manufacturing materials acquired by the company, and when they are approved for use, promulgates safety and health precautions. The department does on occasion reject a material as unacceptable.

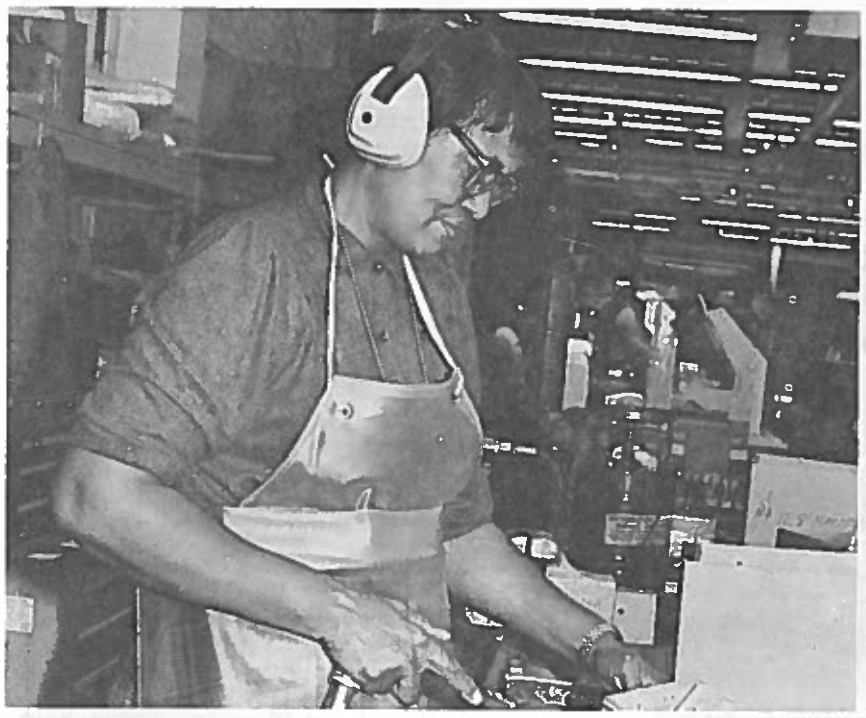
A skill-certification program ensures that those who work in hazard-prone areas are well-versed in safety measures. Industrial Safety and Hygiene also reviews new manufacturing methods as well as training programs. It relies on extensive outreach materials — books, films, videotapes, and the like — to drive home the message of safety.

Myriad regulations

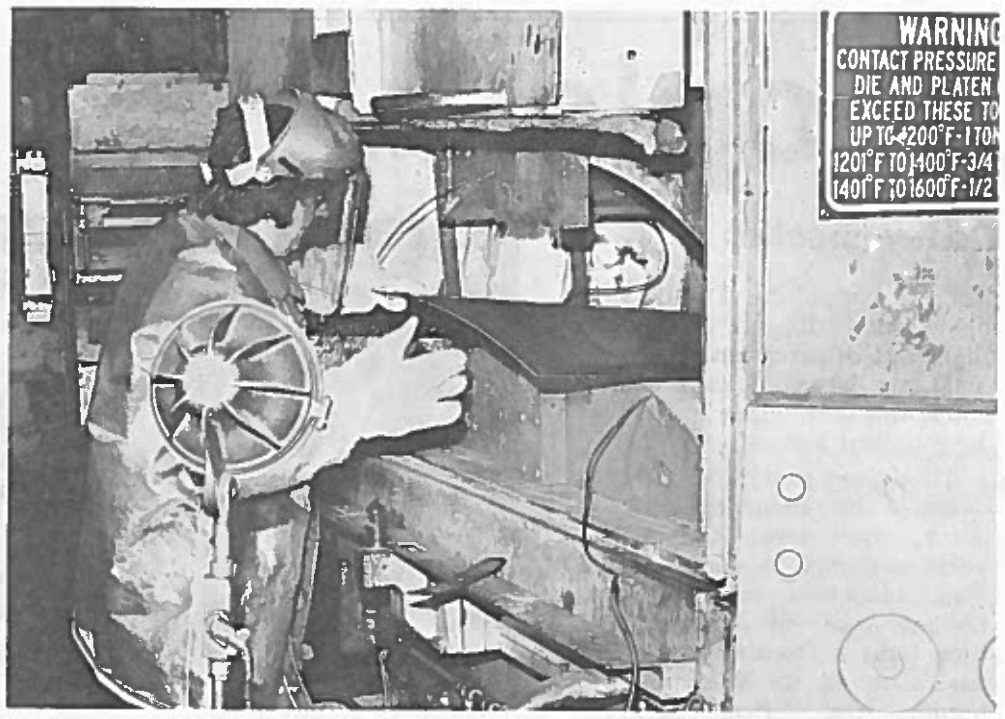
Grumman complies with all applicable OSHA (Occupational Safety and Health Administration, an arm of the Federal government) regulations on workplace safety and health. In addition, the company must comply with various states' regulations, depending on the location of the plant. New York and California are among the states that have their own rules, which are more stringent than OSHA's.

There are also a number of Armed Forces regulations the company must comply with.

In some cases, the company institutes standards drawn up by



Safe and sound. *Normanie Hardy protects her hearing and sight during riveting tasks.*

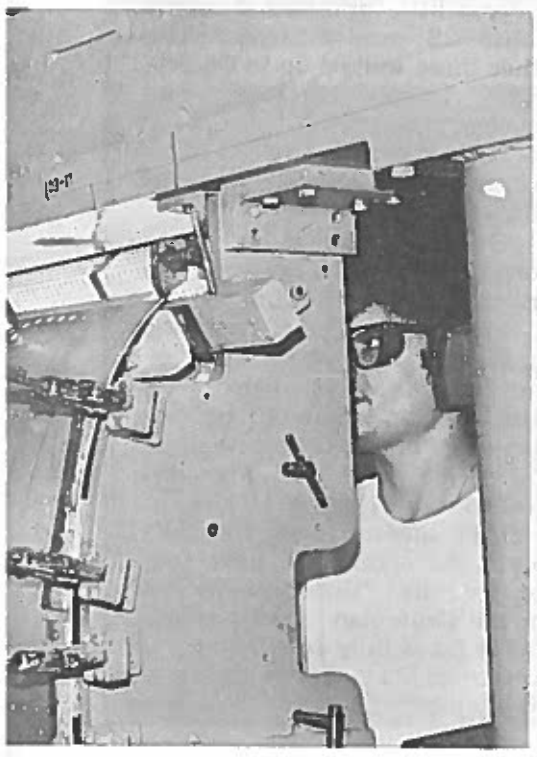


Suited up. *Al Legene wears gloves, aluminized clothing, and a face shield for safe use of heat press equipment.*

the American National Standards Institute (ANSI), the American Conference of Government Industrial Hygienists (ACGIH), and the National Institute for Occupational Safety and Health (NIOSH). Janice Launsbach, industrial hygienist, explains that these standards are voluntary but are often adopted by OSHA or a state later on.

One example is Grumman's rule on exposure to non-ionizing radiation (radio frequencies and microwaves). At Grumman, employees can be exposed to this radiation in the testing of transmission equipment, and if proper care isn't taken, someone could receive a severe burn.

Werner Laag, safety engineer and radiation specialist, explains that OSHA regulations now permit an employee to be exposed to no more than 10 milliwatts per centimeter-squared of radio frequencies or microwaves, in time periods exceeding six minutes. Since that rule came out, however, studies have revealed that the human body absorbs more of certain frequencies than others. As a result, ANSI has come out with a new, frequency-dependent standard, which Grumman has adopted. Laag says OSHA will eventually adopt the new ANSI standard.



The job gets tougher

Despite reports that occupational safety and health rules are being watered down by the Federal government, rules have been tightened in some cases. The lower TLV (threshold limit value, the maximum amount of a substance a worker can be exposed to during a given time period) for lead is an example.

Nemovicher says the major change has been in the way OSHA treats industry. "OSHA used to be adversarial, now it is more consultative," she says.

New work methods have brought a new set of concerns. With the widespread use of computer terminals has come charges that they cause eyestrain and may even emit radiation. Laag notes that the latter has been refuted by NIOSH (as well as Grumman's own studies), while the former, and other terminal-related complaints, can be lessened through proper attention to the work environment. (The department has issued a safety bulletin regarding terminals in the workplace.)

"Safety and Hygiene is a very dynamic field," says Launsbach. "You have to stay abreast of the most current information to solve problems."

This concern for safety and health is catching. George Sturiale, a rubber press operator in Plant 2, has only had one minor accident in 44 years of service, when the rubber-press ram fell on his thumb. Sturiale has also had a number of safety measures implemented among the 79 project Sterling Awards he's received.

In Sturiale's opinion, Grumman has an excellent safety record. In his words, "Keep hammering away at people about safety."

Want to learn more about workplace safety and health? Industrial Safety and Hygiene has a wide array of books, periodicals, films, and other materials designed to acquaint you with the proper safety precautions. The program's staff will also be glad to answer any questions you may have. Just call extension 3193 for more information.

Airing the solution

• Several years ago, research scientists in Plant 35 detected a smoky odor in their offices. A safety engineer was called in to investigate, and found that there indeed were hydrocarbons in the air. The cause: the building's chimney wasn't tall enough to keep prevailing winds from blowing smoke back into the building. The solution: the chimney was extended five feet higher.

• Several people at Plant 40 couldn't figure out why they were tired all the time, and why they also had developed eye, nose, and throat irritations. They suspected it had something to do with a dank, musty odor in their offices, but they weren't sure. When an industrial hygienist checked the situation out, it was discovered that a previous tenant (Grumman leases Plant 40) had cut a hole in an attic wall. As a result, exhaust from the kitchen was being pulled back into the building via its ventilating fan, instead of being expelled through the roof. The wall was repaired, and the air quality at Plant 40 improved greatly.

• A few years ago, when Plant 9 (also a leased building) was first occupied, a few employees reported the same symptoms. But when an industrial hygienist tested the air quality, he found it to be acceptable. Since the employees weren't working with chemicals, and there was adequate ventilaion, the problem was puzzling. The hygienist theorized that the smell came from adhesives used to install carpets and wall coverings. Although the exact cause was never pinpointed, he had the carpets and walls cleaned, and the problem went away.

Greg Kash, senior industrial hygienist, says health hazards are sometimes not as readily apparent as safety problems. They often involve effects that must be measured over a long time period, and there is always new data coming out.

"Health matters aren't always black and white," he says. "They're really insidious."

people

Do-it-yourselfer

Last year, John Tumilowicz' plane took off on its maiden flight out of Brookhaven Airport on Long Island. What's special about this particular plane is that John built it himself.

The plane, an MJ-5 Sirocco designed by Frenchman Marcel Jurca, took seven and a half years to complete. John, a flight test engineer at Calverton, bought a set of Jurca's plans, then built it from scratch in the basement of his Wading River home. And "from scratch" means exactly that — John fashioned the aircraft parts from raw materials before assembling the plane and finishing its exterior.

John also custom-designed the plane's fuel and electrical systems, since specifications for these weren't included in Jurca's plans. Only the engine, the bubble canopy covering the cockpit, wheels and tires were bought ready made.

"Home-built airplanes are very unique," John comments. He initially thought it would be cheaper to build a plane than to buy one, though this proved not to be the case. The MJ-5, which is classified by the FAA as experimental, is very state-of-the-art, John says. "Someone can't just go out and buy one like it."

The body of the plane is of a lightweight, all-wood design — the outer shell is mahogany with a Dacron coating. The plane has a 200-horsepower Lycoming engine and a top speed of 200 miles per hour.

Plane facts. *Grummanite John Tumilowicz climbs into the cockpit of his home-made MJ-5 Sirocco plane.*

John tries to take the plane up every weekend, depending on what the weather's like. The farthest he's flown it has been to Massachusetts and Rhode Island. Recently, he says, he "kidnapped" his wife for a surprise trip to Martha's Vineyard. According to John, unlike their two daughters and son, his wife doesn't like flying very much.

To provide an idea of how massive the project was, just finishing the exterior required 25 coats of paint, with sanding in between. John is grateful for the patience his wife showed while he was building the plane, since it took up just about all his free time. His only respite was in 1975, when he had to stop so he could extend the upstairs of his house.

John says his co-workers at Grumman were very generous with technical advice. And even his kids pitched in and gave him a hand with building the plane — once they were old enough.

The project was something John had never attempted before. Now, though he is proud to be the owner of his own plane, he says he probably won't do it again.

"I built the airplane because I like to fly, not because I like to build," he says.

Nice work. *Tom Merritt (R), vice president — Calverton Operations, and Jim Hebron (L) of Material Management, congratulate Calverton's Skip Conlon on his winning Kiwanis' Super Distinguished President's Award. Jim is past governor of the N.Y. Kiwanis District and Skip is past president of the Peconic River (Grumman) Kiwanis Club.*

B.J. and the bandits

The final sentence has been passed. One man had already been convicted on July 2 and sentenced to life imprisonment for murder. Then, on July 15, three others who were with him on the night of the murder got seven years in prison for attempted armed robbery.

Justice was served in part because Sergeant Billy Joe Cherry of Plant 66 Security did his job.

He was working the graveyard shift last December 29, guarding the Grumman facilities in Milledgeville, Georgia. He was working alone.

Late the day before, four inmates had escaped from the Georgia Youth Development Center, which is just a few miles down the road from Plant 66 on Route 22. They broke into the home of a former Baldwin County sheriff and, after stealing a gun, killed him.

"I came in to work and one of our security officers told me that the police thought they were in this area," Cherry recalled. There wasn't much time to talk about the event, however, the night shift guards were heading home.

Cherry was on his own. About 12:30 a.m., he began to make his rounds.

He drove his truck up to the warehouse area. It's well away from Route 22, up on the high ground behind Plant 66's main building.

"I got this feeling. . .," said Cherry, an experienced cop who had been deputy sheriff in nearby Jones County. "Every time someone escapes from the Center, he follows the railroad tracks." The tracks run right by the Grumman plant.

As he approached a trailer — the security office at the main gate — he saw four men approach the gate. It was 1:45 in the morning.

He remembered that one of the men went back and hid

Billy Joe Cherry

under a little bridge that carries Route 22 over a creek. The other three walked up to Cherry. "They were barefoot," he recalled.

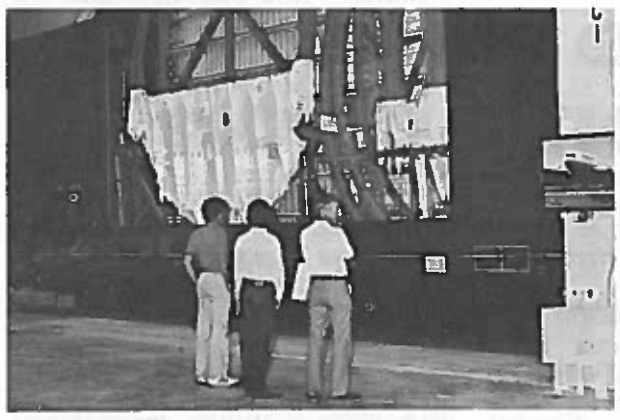
"After they saw my .38, they just said, 'We wanted to give ourselves up.'

"Oh, boy! I was shaky! I was nervous about the guy by the bridge." He had the gun.

Nonetheless, Cherry kept the three in sight, and his mind on the fourth, as he dialed 911. Minutes later some 40 officers converged on the main gate, took the three into custody and flushed out the last one.

After the sun rose, the news began to spread of how four escapees had turned themselves in to a Grumman security guard. But as far as Billy Joe Cherry was concerned, "I was just trying to do my job."

Open house '83. *Thousands of people toured Stuart Operations on Sunday, October 23. The flight line (R) featured a variety of Grumman planes.*



Stuart folks ignore cloudbursts; make 'super weekend' a success

Sure, it rained Saturday, October 22. Okay, you could even say that it poured. But, hundreds of Grummanites, their families and retirees didn't let a little inclement weather spoil the annual Stuart Operations' family picnic.

Vice President Ed Dalva and his picnic committee were well prepared for the cloud bursts. There were plenty of tents set up around the spacious picnic grounds. Grummanites also came prepared for an occasional downpour. Some hitched the family tent, a few utilized backyard picnic table umbrellas for shelter, and one family strung an old parachute up for protection.

Though it was wet, the traditional festivities went on without a hitch. The wet grass provided an excellent sliding platform for the softball players. There were spectacular catches in the field; a few slid so fast into third base that they had to grab the bag as they went by. F-14 Tomcat team members used the field condition to their advantage and won the annual Stuart softball championship tourney.

The volleyball contest also provided a stage for more acrobatics. The Mohawk team proved to be the best "mudders" in the tourney.

The highlight of the day was midday flyby of an A-6E Intruder. A lot of picnickers had never seen the Grumman all-weather attack plane in flight.

The following day, October 23, everyone in the Stuart community was invited to the facility's open house. Thousands of people accepted the invitation to tour the Grumman Aerospace premises.

On the flight line, the visitors had the opportunity to see an A-6E Intruder up close — along with a G-111 amphibian, an OV-1 Mohawk, and an E-2C Hawkeye.

At the end of the tour, a friendly robot urged the attendees to step inside the cafeteria building and see the popular movie that is now playing at the New York City Air and Sea Museum on the *U.S.S. Intrepid*. The film features a variety of Grumman aircraft now in service with the U.S. Navy.

Family affair. *Grumman families and retirees gathered at Stuart Ops. for the 13th annual picnic on October 22.*

Retiree club now boasts 13 chapters

Two bucks and a Grumman career are all it takes to join the largest company-sponsored club. The Grumman Retiree Club makes its home base on Long Island, but there are now 13 chapters meeting monthly across the nation.

The club holds three luncheons, sponsors an outing to a baseball game, and throws a picnic at McKay Field every year, in addition to monthly meetings. Retiree Club President Bill Wange recently announced that the club will hold its annual Christmas luncheon on Wednesday, December 7, at the Crest Hollow Country Club. All club members also receive a monthly newsletter.

If you are interested in joining this elite group, contact Ellen Drassner of Recreation, (516) 575-2133/2269. You can drop her a line at: Grumman Aerospace Corp., A01-28A, Bethpage, N.Y. 11714.

If you reside off Long Island, here is a quick rundown of the 13 chapters, when they meet, and whom to contact (the club presidents):

Manasota West-Fla. — 3rd Thurs. of the month, 12 p.m. at Peoples Restaurant, 7113 N. Tamamiami Trail Rt. 41, Fla. Josephine Hubert, 4105 33rd Ave. Dr. W., Bradenton, FL, (813) 758-5365.

Florida Mid-West — Last Thurs. of the month, 11:30 a.m. at Ft. Cooper Station Restaurant US 41, Inverness, Fla. Edward Schledorn, 1808c Gleneagles Rd., Ocala, Fl. 32672, (904) 694-5251.

Florida Suncoast — 4th Wed. of the month, 12 p.m. at Chief Charlie's Restaurant, 1800 Main St., Dunedin, Fla. William Katona, 5204 Rose Lawn Dr., Holiday, Fl. 33590, (813) 938-1436.

Florida Treasure Coast — 3rd Thurs. of the month, 12 p.m. at Best Western Exec. Inn, US 1, Fort Pierce, Fla. Charles Casella, 774 SE Albatross Ave., Pt. St. Lucie, Fl. 33452, (305) 878-5417.

Florida Southwest — 4th Tues. of the month, 12 p.m. at Black Forest Restaurant, Rt. 41, Port Charlotte, Fla. Hugh Sheridan, 2163 Trailwinds Dr., Ft. Myers, Fl. 33901, (813) 939-2845.

Florida Northeast — 3rd Tues. of the month, 12 p.m. at Sir Steak, 1130 S. Ridgewood Ave., US 1, Daytona Beach, Fla. Fran Ryder, 918 Reed Canal Rd., Lot 180, S. Daytona, Fla. 32019, (904) 761-3504.

Florida Gold Coast — 4th Sat. of the month, 11:30 a.m. at Harris' Imperial House, Pompano Beach, Fla. Cosmo (Gus) D'Errico, 1981 SW 16th Ave., Boynton Bch, Fl. 33435, (305) 737-7687.

Florida Space Coast — 3rd Wed. of the month, 12 p.m. at Mouse Trap, 5600 N. Atlantic Ave., Cocoa Beach, Fla. Mike Pescitelli, 3100 Saunders Pl., Titusville, 32780, (305) 269-3791.

Garden State-N.J. — 3rd Tues. of the month, 11:45 a.m. at Consolidated Officers Club NAEC, Lakehurst, N.J. Contact John "Bus" Wallace, Rd 206, Tuckahoe Dr., Barnegat, NJ 08005, (609) 698-1454.

Savannah-Georgia — 4th Thurs. of the month, 12 p.m. at Holiday Inn, Downtown Savannah, Ga. Vinnie Hoffmann, Rt. #4, Box 464F, Savannah, Ga. 31405, (912) 927-2113.

Blue Ridge-North Carolina — 3rd Thurs. of the month, 12 p.m. at Western Steer Steak House, Hendersonville, N.C. Dick Guinter, 24 Inoli Circle, Brevard, NC 28712, (704) 885-2826.

Desert Sun-New Mexico — 3rd Wed. of the month, 7:30 p.m. at Munson Sr. Citizens Center, Las Cruces, N.M. Henry Geiser, #44, 230 Three Crosses Ave., Las Cruces, NM 88005, (505) 524-4009.

Golden West-Calif. — 3rd Thurs. of the month, 12:30 p.m., Pioneer Rm., Wagon Wheel Restaurant, Oxnard, Calif. Russell Gibbs, 838 Big Horn Court, Camarillo, CA. 93010, (805) 482-9521.

Personals

I wish to express my appreciation and heartfelt thanks to my Grumman friends for their thoughtfulness and kindness during my recent illness. Your prayers, calls, cards, and gifts provided me with the confidence and encouragement that my family and I needed during this critical time. Tony Regalmuto

My family and I want to thank all my friends and associates at Grumman for their kindness and concern during my son Paul's tragic accident. Your thoughtful gifts, sympathy, and especially your prayers were a great comfort to us at this most sorrowful time. Frank Marciniak

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As many of you know Capt. Michael Ohler, the Marine officer killed in Lebanon, was the son of John Ohler, a long time member of Operations Analysis.

We in Operations Analysis have begun to collect money to be presented to Mike's widow for her use in the further education and support of their two young children. It is hoped that this money will be considered as a memorial to young Mike from John's many friends in Operations Analysis, Advanced Systems and throughout Grumman.

If you wish to donate to this fund, please contact Bob Harvey, Ext. 2243 or Tom Doherty, Ext. 1878, in Operations Analysis, Mail Stop: C27-05.

Visiting the Cape?

Grumman Technical Services, Inc. (GTSI) has been established as a Department of Defense cleared facility. In order to visit the GTSI facility, you must follow these procedures:

- *From Grumman facilities on Long Island:* "A Request for Security Clearance for Visit" (Form G 32) must be submitted to the Corporate Security Office at mail stop A02-18. Corporate Security will then send a visit letter to GTSI which will contain all the necessary data.

- *From Grumman facilities outside the L.I. area:* It is not necessary to go through Corporate Security in Bethpage. The only requirement is that you send a visit letter to GTSI. The letter should contain the dates of the visit, the purpose of the visit, and the level of clearance for the individuals.

Pete Sinatra, GTSI's Security officer, reminds all Grummanites that when you submit a visit request to GTSI, this is not a request for a visit to the Kennedy Space Center as well. The Kennedy Space Center is a separate government facility and requires a separate visit request (also available through Corporate Security).

Sinatra adds that GTSI will accept visit requests by facsimile transceiver.

Moore strives for perfection

Attaining a champion's physique is hard work, and for Jim Moore of Plant 3 Facilities, all that hard work recently paid off.

Jim won the heavyweight title in the Eastern American Body Building Championship, which is sponsored by the National Physique Committee (NPC). The event was held in Manhattan October 22 at Martin Luther King High School, and drew 58 competitors.

Jim has chosen to forego the trip to San Jose, California, for this year's national NPC championship, which is being held this month. But he's not resting on his laurels. He's going into training for next year's national title, which will be judged in Hawaii.

Competitors at the regional NPC championship were judged according to body symmetry, proportion, and overall condition. Winners were chosen in four weight categories. Jim points out that body building covers a lot more than just weight lifting — it involves all facets of weight training, including maintaining a high-protein, high-calorie, low-fat, low-carbohydrate diet.

Daily workouts

Jim began training for the regional title last May. When he's in training, he works out twice a day — during lunch and after work — at Mr. America's Body Shop in Farmingdale.

For Jim, who is 24 years old and has been with Grumman since summer of 1982, keeping in shape has been almost a lifelong pursuit. He traces his interest in body building back to his high school days, when his parents first bought him a 110-pound set of weights. Jim has also been a gymnast since elementary school.

Jim says he was ecstatic when he won, but he wasn't completely surprised.

"Every contest you enter, you try to anticipate being a winner," he explains. "This gives you an incentive for training. I knew my chances were pretty good the day of the contest."

Jim isn't a newcomer to the winner's circle — he has about 15 to 20 body-building trophies at home. He is also the current title holder in both the Mr. Metropolitan and Mr. Suburban (a New Jersey event) physique championships.

Jim Moore

scorecard

Tomcats triumph

The Grumman varsity hockey team recently added another to its string of lopsided victories this season with a 17 to 3 win over Team USA. The Tomcats are currently skating their way through the league outpointing their opponents by an average of five goals per game while compiling a 5-1 record.

Rookie center Mike LaBianca opened the scoring for the Tomcats at 16:49 of the first period with the first of his three goals for the night. LaBianca also had four assists for a powerful seven points total in the game. Team captain Jim Allen and right wing Tim Shelly also picked up hat-tricks while defenseman Dave Drew and left winger Ken Rziemieniewski scored two goals each. Right-wingers Chris Fincken, Jack Keane, and Bob Smith along with center Tom Carrol scored one goal each. Defenseman Brian Burke had four assists while goalie Keven Kiendle turned in another fine performance in the net. the net.

Tomcat coach Don White says big things are planned for this year's much improved team with possible games against Navy, Airforce, and West Point. While the team's primary goal is to win the New York State Tournament at the end of the season, Coach White says he is aiming at taking the gold in the National AHAUS Tournament held in Fairbanks, Alaska in March.

The next home game for the Tomcats is Wednesday, November 23 at 8:30 p.m. against Airborne (AIL) in Nassau Coliseum. Admission is free.

Showing no mercy. *Grumman's varsity hockey team slaughtered the U.S.A. team, 17-3, at the Nassau Coliseum.*

Ralph Bauer, 3:18; Joe Cauldwell, 3:28; Al Russo, 3:43; Tony Russo, 2:53; Steve Eglin, 3:03; Mark Farley, 3:36; Jim Campbell, 4:15; Doug O'Neill, 2:54; Pat Masterson, 4:07; Alan End, 3:53; and Al Loeffler, 3:58.

Arrows strike

Four members of the New York Arrows soccer team toured Plant 2 recently. The Arrows' players — Tom Mulroy, David Lischner, and Claudio Rocha — were escorted by Plant 2 manager Sam Avati.

Recreation will once again be selling discount tickets — $4 each — to all the Arrows home games at the Nassau Coliseum. There will also be special Grumman nights. The next event is on December 9 when the Arrows take on Buffalo. There will be a photo and autograph session for all Grummanites.

Call Recreation, Ext. 2133 for additional information.

Circus tickets

Tickets to the Ringling Brothers and Barnum and Bailey Circus are now on sale at all Employee Services (ES) offices. The admission is $8. Tickets are available for the following shows at the Nassau Coliseum: Wednesday, November 30, 7:30 p.m., Section 105-106-107; Thursday, December 1, 7:30 p.m., Section 205.

Big Apple runners

Grumman was well represented in the recent New York City marathon. Those Grummanites who completed the trek around the Big Apple are:

Jim Bethis, 2:52; Dick Opsahl, 3:03; Bob Rennie, 2:59; Annette Frisch, 3:40; Ken Rathjen, 4:44;

Head's up. *Plant 2 manager Sam Avati shows off his soccer skills with New York Arrows player.*

You're right, Jack

Dear Sports Editor:

The 10/14/83 issue of the Plane News contained an article pertaining to the Men's Varsity National Softball Tournament results. I was quite disturbed by the headline, "Best Nationals finish for men in 16 years," not only for myself as ex-manager, but mostly for the players of past tournaments. These men worked very hard and accomplished some fine statistics which they are proud of:

- 1976 — Providence, Rhode Island —
  Finished 5th, placed 2 players on All-American Team: Dom Pagnozzi, SS; Jim Valetutti, OF.
- 1977 — Birmingham, Alabama —
  Finished 4th, placed 3 players on All-American Team: Dom Pagnozzi, SS; Nick Catania, OF; Joe Rivera, P.
- 1978 — Charlotte, North Carolina —
  Finished 5th, placed 2 players on All-American Team: Don Wallace, 3B; Joe Rivera, P.
- 1980 — Lubbock, Texas —
  Finished 5th, placed 1 player on All-American Team: Bob Beattie, OF.

This letter is not intended to diminish the accomplishments of the 1983 team, but to acknowledge prior accomplishments within the past 16 years.

Sincerely,
Jack Keane

Varsity bowling trials

Trials for the mens' and womens' varsity bowling teams begin early in '84. All bowlers vying for slots on the 1984 varsity squads must fill in the entry form on this page and mail it to the Recreation Department.

To be eligible, a contestant must be a full-time Grumman employee. Here are the rules for the tryouts:

A man's bowling average must be a minimum of 175 for at least 24 games in an ABC league. A woman's average must be at least 125 in a league sanctioned by the WIBC.

Season averages for roll-off entry must be computed as of the week of November 19-26. Applications should be filled out completely and mailed to Recreation, A01-28, by Friday, December 9.

At Mid Isle Lanes in Hempstead, men's roll-offs are at 1 p.m. Sundays, January 8 through January 29. The men will bowl a total of 20 games.

At Syosset Lanes, women's varsity candidates will roll a total of 12 games. Roll-offs will take place at 4 p.m. on Saturdays, January 14 through 29.

1983 varsity bowling trials

Name. . . . . .

Perm. No. . . . . Mail stop. . . . . Ext. . . . . .

Qualifying Averages

Men (175) Average	League	Women (125) Lanes
. . . . .	. . . . .	. . . . .
. . . . .		

Mail to: Herb Mahoney, A01-28A

Anders' embroidery sews up best-in-show award

"Coastal Collage," a grouping of six seascapes embroidered in counted cross-stitch by Janet Anders of Plant 35, won the Best-In-Show award at this year's Hobby Show.

The show, held in Plant 28A on October 14, was once again an unqualified success, based on the large number of participants and the caliber of their efforts. Frank Campbell, director of Personnel Relations and Compensation, presented prizes to show winners. In all, there were winners in 20 categories — everything from crochet to model railroads to wood carving.

Asked about her reaction to winning Best-In-Show, Anders says she was "flabbergasted."

A stitch in time. *Janet Anders of Plant 35 won the Best-in-Show award at the 1983 Hobby Show for her embroidery, 'Coastal Collage.'*

"There was a lot of very stiff competition," she says. "A lot of very talented people enter the show."

Anders chose the scenes used in "Coastal Collage" out of a book of cross-stitch designs. The method involved following a graph corresponding to the open weave of the fabric. All in all, the project took her between a year and a half and two years to complete.

Although she has done needlework for many years, this is the first time Anders ever entered a crafts contest. Most of her efforts have gone into making gifts, though she does on occasion keep a piece that she is particularly proud of — and she does plan to hold on to "Coastal Collage."

Anders hesitates to say whether she would try again next year. "It's rather difficult to complete a large piece in a year," she muses. "But I'd like to try again."

Special retiree award

Winner of the Best-In-Show/ Special Retiree Award was Paul Asmussen, who retired in 1976 from Plant 11 — Fiberglass and Plastics Research and Development. His prize-winning wood carvings of robins and blue jays are done in bass wood, a fine-grain hardwood that resists splitting. Asmussen says one bird takes about 200 hours to finish.

Asmussen uses a unique method to determine what colors to paint the birds. He finds birds that have been hit by cars, and mixes his paint until he arrives at a perfect match. He says this is more accurate than working from a photograph or a book.

Asmussen participated in three Hobby Shows while at Grumman. In 1955, he won a prize for silver jewelry-making. In 1969, he took grand prize for wood carvings of ducks on driftwood. Right now, Asmussen is working on a half-scale, working-model spinning wheel. He says it might be ready for next year's show.

Other winners

The following is a listing of the winners in each category, in order of finish (Note: some of the categories only had one or two winners).

Ceramics: Kathy DePace, Lynn Tatem, and Florence Iannaccone.
Collections — Coin, Stamp, & Miscellaneous: Henry MacDonald.
Crocheting: Vera Janicijevic, May D'Aresta, Lenore Weinstein.
Embroidery/Crewel: Janet Anders, Kathy DePace, Jean Steibel.
General: Michael Marcari, Cal Lom, Lynn Tatem.
Knitting: Maureen Brady, Charlotte Gold, Mary Hahn.
Hooked Rugs: Debra Kozerski, Frieda Giacona, Mado Breunig.
Metal Work: Louis Accornero, Frank J. Ciavolella, Tom Manalili.
Models — Miscellaneous: Frank Ciavolella, Harold Wellander, Frank Santella.
Model Planes — Flying — Scale: Wally Kranz, Tony Missale, Ed Murray.
Model Planes — Flying — Non Scale: David Karpiloff.
Model Planes — Non-Flying — Scale: William Barto, Sal Picadaggio, Joseph Bacino.
Model Railroads — Rolling Stock: Al Kuhn, Ray Muntz, Robert Weiss.
Model Railroads — Roadside Scenery: Cliff Franklin, Ray Muntz, F. T. Calderone.
Needlepoint: Helen Watson, Irmgard Angne, Carinne Angne.
Sewing/Quilting: Gertrude Hangwitz, Helen Greiff, Florence Iannaccone.
Ship Models — Kits: Don Imgram, Ed Miller, Joe Gollhofer.
Ship Models — Original Design: Ray Mason, E. N. Miller, Tom Manalili.
Wood Carving: William J. Butterfield, Paul Asmussen, Tom Manalili.
Wood Working: Art Leuteman, Frank Ciavolella, Tom Manalili.

Expert carver. *Paul Asmussen took top retiree award at the Hobby Show for his wood carvings of robins and blue jays. They were carved from basswood, a fine-grain hardwood that resists splitting.*

GRUMMAN plane news

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